



STEVEN A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

MARY FALLIN
Governor

September 12, 2011

CERTIFIED MAIL, RETURN RECEIPT REQUESTED

Grant Humphreys, CEO
The Humphreys Company
P.O.B. 1100
Oklahoma City, OK 73101

Re: Revised Engineering Report Comment Letter
Carlton Landing Subdivision, Lake Eufaula
Facility No. S-30601

Dear Mr. Humphreys:

On August 18, 2011, the Oklahoma Department of Environmental Quality (ODEQ) received an revised engineering report from Timothy W. Johnson, P.E., with Johnson and Associates, Inc., regarding the proposed construction of a five-cell total retention lagoon facility to serve the Carlton Landing subdivision on Lake Eufaula. The first phase of the project consists of constructing the first three lagoon cells: then, within four to five years, the final two lagoon cells will be constructed. The total surface area of the first three cells is 5.5 acres. The remaining two cells have a total surface area of 6.4 acres. The estimated cost of the first phase of the project is \$400,000.

Prior to engineering report approval the following comments must be addressed:

- Construction of lagoons in this area has experienced problems with excessive rock. Please address where soil will be obtained to provide the required four foot separation between the bottom of the lagoon and bedrock. Oklahoma Administrative Code (OAC) 252:656-11-1(d) states, "Areas which may be subjected to karstification (i.e., sink holes or underground streams generally occurring in areas underlain by limestone, gypsum or dolomite), are not suitable lagoon sites. Maintain a 4-foot separation between the lagoon bottom and any bedrock formation."
- Submit a permeability test, compaction test and a structural analysis for the soil being proposed to construct the dikes of the lagoon cells. In addition to the soil borings, please provide the full geotechnical report with conclusions and recommendations as part of a revised engineering report for the site of the proposed lagoons. OAC 252:656-11-3(a) states, "Accurately represent the soil characteristics. Provide soil boring data conducted by an independent soil-testing laboratory. Borings shall extend at least 5 feet below the proposed lagoon bottom and at least one boring shall be at least 25 feet deep or into bedrock. Borings shall be conducted during the time of highest groundwater level. Provide enough borings to be representative of the entire site. If bedrock is encountered, describe its general characteristics and identification, and the corresponding geological formation(s). Include a log of soil types encountered at each boring, the elevation of the water table where encountered and the permeability of soil samples taken from the same elevation as the proposed lagoon bottom. Fill and seal all borings after testing."

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- Submit documentation that the system will have the required emergency alarm for the lift station
OAC 252:656-7-1(a)(1) states, "Provide an emergency plan for handling sewage should the lift station completely fail. Required emergency operations are in 252:656-7-4."

Please submit a revised engineering report within thirty days of receipt of this letter. The report must be accompanied by letter of approval and acceptance of the revised engineering report from the owner of the facility. Direct all questions to Wendy S. Sheets by e-mail wendy.sheets@deq.ok.gov, by phone 405-702-6154, or at the address on the letterhead.

Sincerely,


Wendy S. Sheets, E.I., Engineer Intern
Total Retention Lagoons
Environmental Complaints and Local Services
ODEQ


Myles Mungle, P.E. District Engineer
Municipal Wastewater Enforcement Section
Water Quality Division
ODEQ

cc: Emily Hoskin, E.S., McAlester Office
Stan Ketchum, South Eastern Regional Manager
Rocky Chen, P.E., WQ
Robert Walker, WQ
Central Records
Timothy W. Johnson, P.E., Johnson & Associates, Inc., 1 East Sheridan, Ste 200, OKC, OK 73104